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BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

MIKE GLEASON, Chairman
WILLIAM A. MUNDELL
JEFF HATCH-MILLER
KRISTIN K. MAYES
GARY PIERCE

IN THE MATTER OF THE APPLICATION
OF SEMPRA ENERGY SOLUTIONS FOR A
CERTIFICATE OF CONVENIENCE AND
NECESSITY FOR COMPETITIVE RETAIL
ELECTRIC SERVICES

DOCKET NO. E-03964A-06-0168

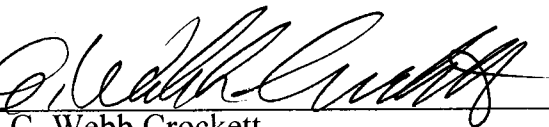
NOTICE OF FILING OF
DIRECT TESTIMONY AND
ATTACHMENTS OF
KEVIN C. HIGGINS
ON BEHALF OF AIR LIQUIDE
INDUSTRIAL U.S. LP

Air Liquide Industrial U.S. LP ("Air Liquide") hereby provides Notice of Filing of
the Direct Testimony and Attachments of its witness, Kevin C. Higgins, in the above
captioned docket.

RESPECTFULLY SUBMITTED this 3rd day of July 2007.

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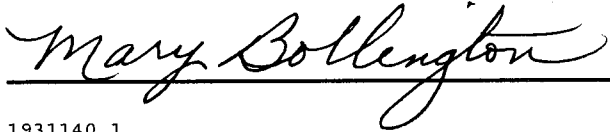
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BEFORE THE ARIZONA CORPORATION COMMISSION

**IN THE MATTER OF THE APPLICATION
OF SEMPRA ENERGY SOLUTIONS FOR A
CERTIFICATE OF CONVENIENCE AND
NECESSITY FOR COMPETITIVE RETAIL
ELECTRIC SERVICE**

Docket No. E-03964A-06-0168

**Direct Testimony of
Kevin C. Higgins**

**on behalf of
Air Liquide Industrial U.S. LP**

July 3, 2007

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ATTACHMENTS

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1 1994, I was chief of staff to the chairman of the Salt Lake County Commission, where I
2 was responsible for development and implementation of a broad spectrum of public policy
3 at the local government level.

4 **Q. Have you previously testified before this Commission?**

5 A. Yes. Over the past ten years I have testified in a number of proceedings
6 before this Commission, including the generic proceeding on retail electric competition
7 (1998), the Arizona Public Service Company ("APS") Direct Access Settlement
8 Agreement (1999), the TEP Direct Access Settlement Agreement (1999), the AEPCO
9 transition charge (1999), the Commission's Track A proceeding (2002), the APS Power
10 Supply Adjustor mechanism proceeding (2003), the Arizona ISA proceeding (2003), the
11 APS general rate case (2004), the Trico rate case (2005), the TEP rate review (2005), the
12 APS emergency interim rate proceeding (2006), the APS general rate case (2006), and
13 TEP's filing to amend Decision No. 62103 (2007).

14 **Q. Have you testified before utility regulatory commissions in other states?**

15 A. Yes. I have testified in over 60 other proceedings on the subjects of electric
16 utility rates and regulatory policy before state utility regulators in Alaska, Arkansas,
17 Colorado, Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky, Michigan, Minnesota,
18 Missouri, Nevada, New York, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina,
19 Utah, Virginia, Washington, West Virginia, and Wyoming. I have also participated in
20 various Pricing Processes conducted by the Salt River Project Board.

21 A more detailed description of my qualifications is contained in Attachment A,
22 attached to this Testimony.

23
24 **II. Overview and Conclusions**

25 **Q. What is the purpose of your Testimony in this proceeding?**

26 A. My Testimony addresses the Application by Sempra Energy Solutions

1 (“SES”) for a Certificate of Convenience and Necessity (“CC&N”) to provide retail
2 electric services in Arizona in the APS, TEP, and SRP service territories.

3 **Q. What are your conclusions and recommendations?**

4 A. Granting SES’s request for a CC&N will provide Arizona customers the
5 opportunity to take direct access service, consistent with the Commission’s Electric
6 Competition Rules and the APS, TEP, and SRP tariffs. Providing such an opportunity is in
7 the public interest as it would expand the choices available to customers. I recommend
8 that the Commission approve SES’s Application and grant the requested CC&N.

9
10 **III. Background**

11 **Q. What is direct access service?**

12 A. Direct access service refers to retail electric service in which the retail
13 customer purchases generation service from a competitive supplier while purchasing
14 distribution (or “wires”) service from the local utility. Under this arrangement, the local
15 utility (or Utility Distribution Company – “UDC”) is paid to deliver the electric power
16 provided by the competitive supplier from the high-voltage transmission system through
17 the UDC’s distribution system to the customer’s meter. In Arizona, competitive suppliers
18 are called Electric Service Providers (“ESP’s”). If its Application is approved, SES would
19 again become an ESP in Arizona.

20 **Q. Is direct access service available to Arizona retail customers pursuant to the**
21 **APS, TEP, and SRP tariffs?**

22 A. Yes. The tariffs for each of those utilities allow customers to take direct
23 access service. In the case of APS and TEP, the Commission’s Electric Competition
24 Rules require that direct access service be made available to all customers.

1 **Q. Please describe your experience in the development of direct access rights for**
2 **retail customers in Arizona.**

3 A. I participated in the workshops and rulemakings conducted by the
4 Commission starting in the mid-1990's that led to the initial development of the Electric
5 Competition Rules, as well as the later modifications to those Rules. I also participated in
6 the Commission's generic proceeding on retail electric competition in 1998. That same
7 year, on behalf of Arizonans for Electric Choice and Competition ("AECC"), I helped
8 negotiate an agreement with Salt River Project ("SRP") that set out the terms of direct
9 access in the SRP territory. The next year I helped negotiate the 1999 APS Settlement
10 Agreement and the 1999 TEP Settlement Agreement, each of which sets out the terms
11 under which direct access service was implemented in those respective service territories.

12 During that period, I also worked with other stakeholders to develop the
13 protocols under which transmission service for direct access service would be acquired
14 and scheduled. These protocols are contained in the tariff of the Arizona Independent
15 Scheduling Administrator ("Arizona ISA"), Phase I of which was approved by the Federal
16 Energy Regulatory Commission ("FERC") on June 28, 2001. These protocols have been
17 incorporated into the Open Access Transmission Tariffs of both APS and TEP and remain
18 in effect today.

19 **Q. What has been the history of direct access service in Arizona?**

20 A. The establishment of direct access rights for Arizona customers was a very
21 challenging and contentious process. One of the major hurdles to implementation was the
22 need to address the utilities' claims that establishment of direct access service would
23 preclude them from being able to fully recover the costs of their generation assets –
24 resulting in billions of dollars of "stranded costs". In addition, there were numerous
25 technical matters related to direct access service that had to be addressed, such as ensuring
26 non-discriminatory access to transmission, provision of ancillary services, development of

1 procedures for settlements and billing, provision of must-run generation, and accounting
2 for energy imbalances, to name but a few. Eventually, through the workshop, rulemaking,
3 negotiation, and hearing processes, over a period of several years, a means for resolving
4 each of these issues was developed.

5 There was an initial small flurry of direct access activity in the APS, TEP,
6 and SRP service territories following the opening up of these territories to retail
7 competition in 1999. However, the California energy crisis soon followed in 2000. The
8 resulting explosion in wholesale power prices made direct access untenable in the APS
9 and SRP territories as retail providers could not compete with the utilities' much lower
10 Standard Offer generation prices. Direct access service continued in the TEP service
11 territory until 2001, when TEP initiated a change in its stranded cost charge calculation
12 that made direct access service uneconomical and caused its shopping customers to return
13 to Standard Offer service. I disputed this change with TEP, and this calculation problem
14 has since been resolved, but TEP customers have not returned to direct access service.

15 Then, in 2004, the Arizona Court of Appeals, in *Phelps Dodge Corporation,*
16 *et al., v. Arizona Electric Power Cooperative, Inc., et al.*, 207 Ariz. 95, 83 P.3d 573
17 (2004) ("*Phelps Dodge Decision*"), upheld a superior court's invalidation of the
18 CC&N's that had been granted by the Commission to ESP's, on the grounds that the Rule
19 under which the CC&N's were granted established a method for setting rates that did not
20 consider the "fair value" of property owned by ESP's in Arizona. [Paragraphs 19, 39]
21 This Decision left Arizona without any certificated competitive retail providers.

22 Even after the California crises abated, wholesale market prices remained
23 consistently above Standard Offer generation rates in the SRP and APS territories. Until
24 now, this situation has provided ESP's little economic incentive to invest the time and
25 incur the expense to re-apply for CC&N's in a manner that meets Arizona's constitutional
26 requirements. As a result of these and other factors, direct access service has been

1 inactive in Arizona since the early part of this decade.

2 **Q. Did the *Phelps Dodge* Decision find that direct access could not be**
3 **implemented in Arizona?**

4 A. As I am not an attorney, I cannot offer a legal opinion on the *Phelps Dodge*
5 case. However, I am informed by counsel that the *Phelps Dodge* Decision determined
6 that, although certain specific provisions in the Electric Competition Rules were
7 unconstitutional, those provisions should be severed from the Rules, and that the
8 "remaining Rules are workable and can therefore continue to exist intact." [Paragraph 52]
9 Therefore, I am informed, the *Phelps Dodge* Decision did not find against the
10 implementation of direct access in Arizona.

11 **Q. Were there other aspects of the Rules that were affected by the *Phelps Dodge***
12 **Decision?**

13 A. Yes. The *Phelps Dodge* Decision invalidated the provision in the Rules that
14 mandated the divestiture of utility generation. It also invalidated the Rule mandating the
15 formation of the Arizona ISA. Further, it upheld the superior court's ruling that certain of
16 the Rules required certification by the Attorney General.

17 **Q. Did the invalidation of divestiture requirement have a direct effect on the**
18 **terms for providing electric competition in Arizona?**

19 A. No. By the time the *Phelps Dodge* Decision was issued, the Commission
20 had already waived the divestiture requirement and ordered APS and TEP to cancel any
21 plans to divest generating assets in Decision No. 65254 ("Track A" Decision), issued
22 September 10, 2002.

23 **Q. Did the invalidation of requirement to form the Arizona ISA have any effect**
24 **on the terms for providing electric competition in Arizona?**

25 A. No. The Arizona ISA is a FERC-jurisdictional entity with a FERC-approved
26 tariff. The protocols developed by the Arizona ISA were (and are) needed whether or not

1 the formation of the organization was mandated by the Commission. The Court's
2 invalidation of the Commission's mandate to form the Arizona ISA has no impact on the
3 viability of the organization, nor does it undo the organization's independent existence or
4 the approval of its tariff by FERC. This is not just my opinion, but also the conclusions of
5 this Commission in Decision No. 68485, issued February 23, 2006.

6 **Q. How would you characterize the history of this Commission's approach to**
7 **direct access service?**

8 A. I believe this Commission has acted very wisely and responsibly over the
9 years in providing the option to customers to shop for power. In creating the opportunity
10 for customers to shop, the Commission has continued to require that Standard Offer
11 service at regulated rates be made available to all customers. This has proven to be a very
12 prudent policy. When customers in other western states were ravaged by the California
13 energy crisis, Arizona customers actually experienced rate reductions due to the transition
14 plans put together by stakeholders under the approval of the Commission. When other
15 states opted for elaborate and expensive new regimes (e.g., California Power Exchange),
16 Arizona kept its model simple. Although direct access in Arizona has not developed to
17 date as intended by the Commission's Electric Competition Rules, this is due to market
18 economics and court decisions and is not the fault of the Commission's policies.

19 At the same time, the Commission has acted wisely in preserving the direct
20 access option for customers. Achieving the right for customers to access the marketplace
21 was very difficult. It has been a sound policy to retain this option until such time that
22 parties are able to develop direct access transactions. The current Application by SES is
23 an indication that there is a renewed interest in such transactions.

24
25 **IV. SES Application**

26 **Q. Have you reviewed the Application and Testimony submitted by SES?**

1 A. Yes, I have reviewed SES's Application filed on March 16, 2006. I have
2 also reviewed the Direct Testimony filed by Greg Bass in support of SES's Application
3 and the Supplemental Testimony filed by Mr. Bass earlier this year.

4 **Q. What conclusions have you reached based on your review of these materials?**

5 A. SES is a highly-qualified retail electric service provider that is among the
6 nation's most experienced providers of direct access electric service. SES's interest in
7 renewing its CC&N is a positive development for Arizona in the provision of direct access
8 options for Arizona retail customers. SES appears to meet all the requirements for CC&N
9 approval. I recommend that its Application be approved by the Commission.

10 **Q. Do you believe there is a public interest benefit in approving SES'**
11 **Application?**

12 A. Yes. Approval of SES's Application will improve the opportunity for
13 customers to take direct access service, consistent with the intent of the Commission's
14 Electric Competition Rules. Whether such transactions actually occur will depend on
15 market conditions going forward, but the certification of a nationally-active ESP will at
16 least provide an essential ingredient in allowing for such transactions.

17 Direct access service will provide customers a choice in generation supplier,
18 which itself is a public benefit. It will also allow for innovative arrangements for
19 customers to procure power by having access to the transmission system. Further,
20 customers who purchase power from third-party providers will relieve the utility of the
21 need to procure more expensive gas-fired generation during peak hours to serve native
22 load. In this sense, direct access is comparable to demand-side management with respect
23 to the cost savings experienced on the utility generation system.

24 **Q. Do you believe there is any potential downside to approving SES's**
25 **Application?**

26 A. There is virtually no downside to approving SES's Application. The hard

1 work of figuring out how direct access would be implemented in Arizona has already been
2 performed. Approval of SES's Application would simply allow the process that has
3 already been designed to go forward.

4 **Q. Why does Air Liquide support SES's Application?**

5 A. Electric power costs are a major component in Air Liquide's manufacturing
6 costs, and Air Liquide has considerable experience in purchasing power in competitive
7 markets in other utility service territories around the country, such as Texas, Washington,
8 New York, New Jersey, Illinois, and Delaware. Based on its experience with retail
9 competition in other states, Air Liquide supports actions to make shopping more viable in
10 Arizona, consistent with the Commission's Electric Competition Rules.

11 **Q. Does Air Liquide intend to take direct access service in Arizona?**

12 A. Direct access is an option that Air Liquide intends to review seriously, if
13 SES's Application for a CC&N is approved. For many years, Air Liquide took service
14 from TEP under a special contract, or Electric Service Agreement ("ESA"). This
15 agreement expired on December 31, 2005. As the expiration of the ESA approached, Air
16 Liquide informed TEP that Air Liquide intended to pursue direct access service at the
17 earliest time possible following the contract's expiration, but that this action was
18 dependent upon a qualified ESP being granted a CC&N.

19 **Q. Is there any significance to the fact that Air Liquide was an ESA customer?**

20 A. Yes. Paragraph 2.1(h) of the 1999 TEP Settlement Agreement, attached as
21 Attachment KCH-1, specifies the basis for calculating the CTC for ESA customers. As
22 Air Liquide was an ESA customer at the time of the 1999 TEP Settlement Agreement, Air
23 Liquide anticipates that the stranded cost charge (or "CTC") applicable to its direct access
24 load would be calculated pursuant to that provision through the end of 2008, when the
25 CTC fully expires.

26

1 **V. Response to Staff Direct Testimony**

2 **Q. Have you reviewed the Direct Testimony filed on behalf of Staff in this**
3 **proceeding?**

4 A. No, my Direct Testimony was prepared prior to the filing of Staff's
5 Testimony. As was noted when the schedule for this proceeding was established, I had
6 longstanding plans to be out of the country between June 17 and July 8, 2007, during
7 which time I would not be available to prepare Testimony. When, pursuant to the
8 Procedural Order issued June 8, 2007, the filing deadline for Staff's Testimony was
9 extended from June 11 to June 19, it rendered me unable to review Staff's Testimony
10 prior to finalizing my own. Therefore, the first opportunity I will have to respond to
11 Staff's Direct Testimony will be in my Rebuttal Testimony, which is scheduled to be filed
12 on July 19, 2007.

13

14 **Q. Does this conclude your Direct Testimony?**

15 A. Yes, it does.

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KEVIN C. HIGGINS
Principal, Energy Strategies, L.L.C.
215 South State St., Suite 200, Salt Lake City, UT 84111

Vitae

PROFESSIONAL EXPERIENCE

Principal, Energy Strategies, L.L.C., Salt Lake City, Utah, January 2000 to present. Responsible for energy-related economic and policy analysis, regulatory intervention, and strategic negotiation on behalf of industrial, commercial, and public sector interests. Previously Senior Associate, February 1995 to December 1999.

Adjunct Instructor in Economics, Westminster College, Salt Lake City, Utah, September 1981 to May 1982; September 1987 to May 1995. Taught in the economics and M.B.A. programs. Awarded Adjunct Professor of the Year, Gore School of Business, 1990-91.

Chief of Staff to the Chairman, Salt Lake County Board of Commissioners, Salt Lake City, Utah, January 1991 to January 1995. Senior executive responsibility for all matters of county government, including formulation and execution of public policy, delivery of approximately 140 government services, budget adoption and fiscal management (over \$300 million), strategic planning, coordination with elected officials, and communication with consultants and media.

Assistant Director, Utah Energy Office, Utah Department of Natural Resources, Salt Lake City, Utah, August 1985 to January 1991. Directed the agency's resource development section, which provided energy policy analysis to the Governor, implemented state energy development policy, coordinated state energy data collection and dissemination, and managed energy technology demonstration programs. Position responsibilities included policy formulation and implementation, design and administration of energy technology demonstration programs, strategic management of the agency's interventions before the Utah Public Service Commission, budget preparation, and staff development. Supervised a staff of economists, engineers, and policy analysts, and served as lead economist on selected projects.

Utility Economist, Utah Energy Office, January 1985 to August 1985. Provided policy and economic analysis pertaining to energy conservation and resource development, with an emphasis on utility issues. Testified before the state Public Service Commission as an expert witness in cases related to the above.

Acting Assistant Director, Utah Energy Office, June 1984 to January 1985. Same responsibilities as Assistant Director identified above.

Research Economist, Utah Energy Office, October 1983 to June 1984. Provided economic analysis pertaining to renewable energy resource development and utility issues. Experience includes preparation of testimony, development of strategy, and appearance as an expert witness for the Energy Office before the Utah PSC.

Operations Research Assistant, Corporate Modeling and Operations Research Department, Utah Power and Light Company, Salt Lake City, Utah, May 1983 to September 1983. Primary area of responsibility: designing and conducting energy load forecasts.

Instructor in Economics, University of Utah, Salt Lake City, Utah, January 1982 to April 1983. Taught intermediate microeconomics, principles of macroeconomics, and economics as a social science.

Teacher, Vernon-Verona-Sherrill School District, Verona, New York, September 1976 to June 1978.

EDUCATION

Ph.D. Candidate, Economics, University of Utah (coursework and field exams completed, 1981).

Fields of Specialization: Public Finance, Urban and Regional Economics, Economic Development, International Economics, History of Economic Doctrines.

Bachelor of Science, Education, State University of New York at Plattsburgh, 1976 (cum laude).

Danish International Studies Program, University of Copenhagen, 1975.

SCHOLARSHIPS AND FELLOWSHIPS

University Research Fellow, University of Utah, Salt Lake City, Utah 1982 to 1983.

Research Fellow, Institute of Human Resources Management, University of Utah, 1980 to 1982.

Teaching Fellow, Economics Department, University of Utah, 1978 to 1980.

New York State Regents Scholar, 1972 to 1976.

EXPERT TESTIMONY

“Application of Public Service Company of Oklahoma for a Determination that Additional Electric Generating Capacity Will Be Used and Useful,” **Oklahoma** Corporation Commission, Cause No. PUD 200500516; “Application of Public Service Company of Oklahoma for a Determination that Additional Baseload Electric Generating Capacity Will Be Used and Useful,” Cause No. PUD 200600030; “In the Matter of the Application of Oklahoma Gas and Electric Company for an Order Granting Pre-Approval to Construct Red Rock Generating Facility and Authorizing a Recovery Rider,” Cause No. PUD200700012. Responsive testimony submitted May 21, 2007.

“Application of Nevada Power Company for Authority to Increase Its Annual Revenue Requirement for General Rates Charged to All Classes of Electric Customers and for Relief Properly Related Thereto,” Public Utilities Commission of **Nevada**, Docket No. 06-11022. Direct testimony submitted March 14, 2007 (Phase III – revenue requirements) and March 19, 2007 (Phase IV – rate design). Cross examined April 10, 2007 (Phase III – revenue requirements) and April 16, 2007 (Phase IV – rate design).

“In the Matter of the Application of Entergy Arkansas, Inc. for Approval of Changes in Rates for Retail Electric Service,” **Arkansas** Public Service Commission, Docket No. 06-101-U. Direct testimony submitted February 5, 2007. Surrebuttal testimony submitted March 26, 2007.

“Monongahela Power Company and The Potomac Edison Company, both d/b/a Allegheny Power – Rule 42T Application to Increase Electric Rates and Charges,” Public Service Commission of **West Virginia**, Case No. 06-0960-E-42T; “Monongahela Power Company and The Potomac Edison Company, both d/b/a Allegheny Power – Information Required for Change of Depreciation Rates Pursuant to Rule 20,” Case No. 06-1426-E-D. Direct and rebuttal testimony submitted January 22, 2007.

“In the Matter of the Tariffs of Aquila, Inc., d/b/a Aquila Networks-MPS and Aquila Networks-L&P Increasing Electric Rates for the Services Provided to Customers in the Aquila Networks-MPS and Aquila Networks-L&P Missouri Service Areas,” **Missouri** Public Service Commission, Case No. ER-2007-0004. Direct testimony submitted January 18, 2007 (revenue requirements) and January 25, 2007 (revenue apportionment). Supplemental direct testimony submitted February 27, 2007.

“In the Matter of the Filing by Tucson Electric Power Company to Amend Decision No. 62103, **Arizona** Corporation Commission, Docket No. E-01933A-05-0650. Direct testimony submitted January 8, 2007. Surrebuttal testimony filed February 8, 2007. Cross examined March 8, 2007.

“In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company’s Missouri Service

Area,” **Missouri** Public Service Commission, Case No. ER-2007-0002. Direct testimony submitted December 15, 2006 (revenue requirements) and December 29, 2006 (fuel adjustment clause/cost-of-service/rate design). Rebuttal testimony submitted February 5, 2007 (cost-of-service). Surrebuttal testimony submitted February 27, 2007. Cross examined March 21, 2007.

“In the Matter of Application of The Union Light, Heat and Power Company d/b/a Duke Energy Kentucky, Inc. for an Adjustment of Electric Rates,” **Kentucky** Public Service Commission, Case No. 2006-00172. Direct testimony submitted September 13, 2006.

“In the Matter of Appalachian Power Company’s Application for Increase in Electric Rates,” **Virginia** State Corporation Commission, Case No. PUE-2006-00065. Direct testimony submitted September 1, 2006. Cross examined December 7, 2006.

“In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, To Approve Rate Schedules Designed to Develop Such Return, and to Amend Decision No. 67744, **Arizona** Corporation Commission,” Docket No. E-01345A-05-0816. Direct testimony submitted August 18, 2006 (revenue requirements) and September 1, 2006 (cost-of-service/rate design). Surrebuttal testimony submitted September 27, 2006. Cross examined November 7, 2006.

“Re: The Tariff Sheets Filed by Public Service Company of Colorado with Advice Letter No 1454 – Electric,” **Colorado** Public Utilities Commission, Docket No. 06S-234EG. Answer testimony submitted August 18, 2006.

“Portland General Electric General Rate Case Filing,” Public Utility Commission of **Oregon**, Docket No. UE-180. Direct testimony submitted August 9, 2006. Joint testimony regarding stipulation submitted August 22, 2006.

“2006 Puget Sound Energy General Rate Case,” **Washington** Utilities and Transportation Commission, Docket Nos. UE-060266 and UG-060267. Response testimony submitted July 19, 2006. Joint testimony regarding stipulation submitted August 23, 2006.

“In the Matter of PacifiCorp, dba Pacific Power & Light Company, Request for a General Rate Increase in the Company’s Oregon Annual Revenues,” Public Utility Commission of **Oregon**, Docket No. UE-179. Direct testimony submitted July 12, 2006. Joint testimony regarding stipulation submitted August 21, 2006.

“Petition of Metropolitan Edison Company for Approval of a Rate Transition Plan,” **Pennsylvania** Public Utilities Commission, Docket Nos. P-00062213 and R-00061366; “Petition of Pennsylvania Electric Company for Approval of a Rate Transition Plan,” Docket Nos. P-0062214 and R-00061367; Merger Savings Remand Proceeding, Docket Nos. A-110300F0095

and A-110400F0040. Direct testimony submitted July 10, 2006. Rebuttal testimony submitted August 8, 2006. Surrebuttal testimony submitted August 18, 2006. Cross examined August 30, 2006.

"In the Matter of the Application of PacifiCorp for approval of its Proposed Electric Rate Schedules & Electric Service Regulations," **Utah** Public Service Commission, Docket No. 06-035-21. Direct testimony submitted June 9, 2006 (Test Period). Surrebuttal testimony submitted July 14, 2006.

"Joint Application of Questar Gas Company, the Division of Public Utilities, and Utah Clean Energy for the Approval of the Conservation Enabling Tariff Adjustment Option and Accounting Orders," **Utah** Public Service Commission, Docket No. 05-057-T01. Direct testimony submitted May 15, 2006.

"Central Illinois Light Company d/b/a AmerenCILCO, Central Illinois Power Company d/b/a AmerenCIPS, Illinois Power Company d/b/a AmerenIP, Proposed General Increase in Rates for Delivery Service (Tariffs Filed December 27, 2005)," **Illinois** Commerce Commission, Docket Nos. 06-0070, 06-0071, 06-0072. Direct testimony submitted March 26, 2006. Rebuttal testimony submitted June 27, 2006.

"In the Matter of Appalachian Power Company and Wheeling Power Company, both dba American Electric Power," Public Service Commission of **West Virginia**, Case No. 05-1278-E-PC-PW-42T. Direct and rebuttal testimony submitted March 8, 2006.

"In the Matter of Northern States Power Company d/b/a Xcel Energy for Authority to Increase Rates for Electric Service in Minnesota," **Minnesota** Public Utilities Commission, Docket No. G-002/GR-05-1428. Direct testimony submitted March 2, 2006. Rebuttal testimony submitted March 30, 2006. Cross examined April 25, 2006.

"In the Matter of the Application of Arizona Public Service Company for an Emergency Interim Rate Increase and for an Interim Amendment to Decision No. 67744," **Arizona** Corporation Commission, Docket No. E-01345A-06-0009. Direct testimony submitted February 28, 2006. Cross examined March 23, 2006.

"In the Matter of the Applications of Westar Energy, Inc. and Kansas Gas and Electric Company for Approval to Make Certain Changes in Their Charges for Electric Service," State Corporation Commission of **Kansas**, Case No. 05-WSEE-981-RTS. Direct testimony submitted September 9, 2005. Cross examined October 28, 2005.

"In the Matter of the Application of Columbus Southern Power Company and Ohio Power Company for Authority to Recover Costs Associated with the Construction and Ultimate Operation of an Integrated Combined Cycle Electric Generating Facility," Public Utilities

Commission of **Ohio**," Case No. 05-376-EL-UNC. Direct testimony submitted July 15, 2005. Cross examined August 12, 2005.

"In the Matter of the Filing of General Rate Case Information by Tucson Electric Power Company Pursuant to Decision No. 62103," **Arizona** Corporation Commission, Docket No. E-01933A-04-0408. Direct testimony submitted June 24, 2005.

"In the Matter of Application of The Detroit Edison Company to Unbundle and Realign Its Rate Schedules for Jurisdictional Retail Sales of Electricity," **Michigan** Public Service Commission, Case No. U-14399. Direct testimony submitted June 9, 2005. Rebuttal testimony submitted July 1, 2005.

"In the Matter of the Application of Consumers Energy Company for Authority to Increase Its Rates for the Generation and Distribution of Electricity and Other Relief," **Michigan** Public Service Commission, Case No. U-14347. Direct testimony submitted June 3, 2005. Rebuttal testimony submitted June 17, 2005.

"In the Matter of Pacific Power & Light, Request for a General Rate Increase in the Company's Oregon Annual Revenues," Public Utility Commission of **Oregon**, Docket No. UE 170. Direct testimony submitted May 9, 2005. Surrebuttal testimony submitted June 27, 2005. Joint testimony regarding partial stipulations submitted June 2005, July 2005, and August 2005.

"In the Matter of the Application of Trico Electric Cooperative, Inc. for a Rate Increase," **Arizona** Corporation Commission, Docket No. E-01461A-04-0607. Direct testimony submitted April 13, 2005. Surrebuttal testimony submitted May 16, 2005. Cross examined May 26, 2005.

"In the Matter of the Application of PacifiCorp for Approval of its Proposed Electric Service Schedules and Electric Service Regulations," **Utah** Public Service Commission, Docket No. 04-035-42. Direct testimony submitted January 7, 2005.

"In the Matter of the Application by Golden Valley Electric Association, Inc., for Authority to Implement Simplified Rate Filing Procedures and Adjust Rates," Regulatory Commission of **Alaska**, Docket No. U-4-33. Direct testimony submitted November 5, 2004. Cross examined February 8, 2005.

"Advice Letter No. 1411 - Public Service Company of Colorado Electric Phase II General Rate Case," **Colorado** Public Utilities Commission, Docket No. 04S-164E. Direct testimony submitted October 12, 2004. Cross-answer testimony submitted December 13, 2004. Testimony

withdrawn January 18, 2005, following Applicant's withdrawal of testimony pertaining to TOU rates.

"In the Matter of Georgia Power Company's 2004 Rate Case," **Georgia** Public Service Commission, Docket No. 18300-U. Direct testimony submitted October 8, 2004. Cross examined October 27, 2004.

"2004 Puget Sound Energy General Rate Case," **Washington** Utilities and Transportation Commission, Docket Nos. UE-040641 and UG-040640. Response testimony submitted September 23, 2004. Cross-answer testimony submitted November 3, 2004. Joint testimony regarding stipulation submitted December 6, 2004.

"In the Matter of the Application of PacifiCorp for an Investigation of Interjurisdictional Issues," **Utah** Public Service Commission, Docket No. 02-035-04. Direct testimony submitted July 15, 2004. Cross examined July 19, 2004.

"In the Matter of an Adjustment of the Gas and Electric Rates, Terms and Conditions of Kentucky Utilities Company," **Kentucky** Public Service Commission, Case No. 2003-00434. Direct testimony submitted March 23, 2004. Testimony withdrawn pursuant to stipulation entered May 2004.

"In the Matter of an Adjustment of the Gas and Electric Rates, Terms and Conditions of Louisville Gas and Electric Company," **Kentucky** Public Service Commission, Case No. 2003-00433. Direct testimony submitted March 23, 2004. Testimony withdrawn pursuant to stipulation entered May 2004.

"In the Matter of the Application of Idaho Power Company for Authority to Increase Its Interim and Base Rates and Charges for Electric Service," **Idaho** Public Utilities Commission, Case No. IPC-E-03-13. Direct testimony submitted February 20, 2004. Rebuttal testimony submitted March 19, 2004. Cross examined April 1, 2004.

"In the Matter of the Applications of the Ohio Edison Company, the Cleveland Electric Illuminating Company and the Toledo Edison Company for Authority to Continue and Modify Certain Regulatory Accounting Practices and Procedures, for Tariff Approvals and to Establish Rates and Other Charges, Including Regulatory Transition Charges Following the Market Development Period," Public Utilities Commission of **Ohio**, Case No. 03-2144-EL-ATA. Direct testimony submitted February 6, 2004. Cross examined February 18, 2004.

"In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property of the Company for Ratemaking Purposes, To Fix a Just and Reasonable Rate of Return Thereon, To Approve Rate Schedules Designed to Develop Such Return, and For Approval of Purchased Power Contract," **Arizona** Corporation Commission,

Docket No. E-01345A-03-0437. Direct testimony submitted February 3, 2004. Rebuttal testimony submitted March 30, 2004. Direct testimony regarding stipulation submitted September 27, 2004. Responsive / Clarifying testimony regarding stipulation submitted October 25, 2004. Cross examined November 8-10, 2004 and November 29-December 3, 2004.

“In the Matter of Application of the Detroit Edison Company to Increase Rates, Amend Its Rate Schedules Governing the Distribution and Supply of Electric Energy, etc.,” **Michigan** Public Service Commission, Case No. U-13808. Direct testimony submitted December 12, 2003 (interim request) and March 5, 2004 (general rate case).

“In the Matter of PacifiCorp’s Filing of Revised Tariff Schedules,” Public Utility Commission of **Oregon**, Docket No. UE-147. Joint testimony regarding stipulation submitted August 21, 2003.

“Petition of PSI Energy, Inc. for Authority to Increase Its Rates and Charges for Electric Service, etc.,” **Indiana** Utility Regulatory Commission, Cause No. 42359. Direct testimony submitted August 19, 2003. Cross examined November 5, 2003.

“In the Matter of the Application of Consumers Energy Company for a Financing Order Approving the Securitization of Certain of its Qualified Cost,” **Michigan** Public Service Commission, Case No. U-13715. Direct testimony submitted April 8, 2003. Cross examined April 23, 2003.

“In the Matter of the Application of Arizona Public Service Company for Approval of Adjustment Mechanisms,” **Arizona** Corporation Commission, Docket No. E-01345A-02-0403. Direct testimony submitted February 13, 2003. Surrebuttal testimony submitted March 20, 2003. Cross examined April 8, 2003.

“Re: The Investigation and Suspension of Tariff Sheets Filed by Public Service Company of Colorado, Advice Letter No. 1373 – Electric, Advice Letter No. 593 – Gas, Advice Letter No. 80 – Steam,” **Colorado** Public Utilities Commission, Docket No. 02S-315 EG. Direct testimony submitted November 22, 2002. Cross-answer testimony submitted January 24, 2003.

“In the Matter of the Application of The Detroit Edison Company to Implement the Commission’s Stranded Cost Recovery Procedure and for Approval of Net Stranded Cost Recovery Charges,” **Michigan** Public Service Commission, Case No. U-13350. Direct testimony submitted November 12, 2002.

“Application of South Carolina Electric & Gas Company: Adjustments in the Company’s Electric Rate Schedules and Tariffs,” Public Service Commission of **South Carolina**, Docket No. 2002-223-E. Direct testimony submitted November 8, 2002. Surrebuttal testimony submitted November 18, 2002. Cross examined November 21, 2002.

"In the Matter of the Application of Questar Gas Company for a General Increase in Rates and Charges," **Utah** Public Service Commission, Docket No. 02-057-02. Direct testimony submitted August 30, 2002. Rebuttal testimony submitted October 4, 2002.

"The Kroger Co. v. Dynegy Power Marketing, Inc.," **Federal Energy Regulatory Commission**, EL02-119-000. Confidential affidavit filed August 13, 2002.

"In the matter of the application of Consumers Energy Company for determination of net stranded costs and for approval of net stranded cost recovery charges," **Michigan** Public Service Commission, Case No. U-13380. Direct testimony submitted August 9, 2002. Rebuttal testimony submitted August 30, 2002. Cross examined September 10, 2002.

"In the Matter of the Application of Public Service Company of Colorado for an Order to Revise Its Incentive Cost Adjustment," **Colorado** Public Utilities Commission, Docket 02A-158E. Direct testimony submitted April 18, 2002.

"In the Matter of the Generic Proceedings Concerning Electric Restructuring Issues," **Arizona** Corporation Commission, Docket No. E-00000A-02-0051, "In the Matter of Arizona Public Service Company's Request for Variance of Certain Requirements of A.A.C. R14-2-1606," Docket No. E-01345A-01-0822, "In the Matter of the Generic Proceeding Concerning the Arizona Independent Scheduling Administrator," Docket No. E-00000A-01-0630, "In the Matter of Tucson Electric Power Company's Application for a Variance of Certain Electric Competition Rules Compliance Dates," Docket No. E-01933A-02-0069, "In the Matter of the Application of Tucson Electric Power Company for Approval of its Stranded Cost Recovery," Docket No. E-01933A-98-0471. Direct testimony submitted March 29, 2002 (APS variance request); May 29, 2002 (APS Track A proceeding/market power issues); and July 28, 2003 (Arizona ISA). Rebuttal testimony submitted August 29, 2003 (Arizona ISA). Cross examined June 21, 2002 (APS Track A proceeding/market power issues) and September 12, 2003 (Arizona ISA).

"In the Matter of Savannah Electric & Power Company's 2001 Rate Case," **Georgia** Public Service Commission, Docket No. 14618-U. Direct testimony submitted March 15, 2002. Cross examined March 28, 2002.

"Nevada Power Company's 2001 Deferred Energy Case," Public Utilities Commission of **Nevada**, PUCN 01-11029. Direct testimony submitted February 7, 2002. Cross examined February 21, 2002.

"2001 Puget Sound Energy Interim Rate Case," **Washington** Utilities and Transportation Commission, Docket Nos. UE-011570 and UE-011571. Direct testimony submitted January 30, 2002. Cross examined February 20, 2002.

"In the Matter of Georgia Power Company's 2001 Rate Case," **Georgia** Public Service Commission, Docket No. 14000-U. Direct testimony submitted October 12, 2001. Cross examined October 24, 2001.

"In the Matter of the Application of PacifiCorp for Approval of Its Proposed Electric Rate Schedules and Electric Service Regulations," **Utah** Public Service Commission, Docket No. 01-35-01. Direct testimony submitted June 15, 2001. Rebuttal testimony submitted August 31, 2001.

"In the Matter of Portland General Electric Company's Proposal to Restructure and Reprice Its Services in Accordance with the Provisions of SB 1149," Public Utility Commission of **Oregon**, Docket No. UE-115. Direct testimony submitted February 20, 2001. Rebuttal testimony submitted May 4, 2001. Joint testimony regarding stipulation submitted July 27, 2001.

"In the Matter of the Application of APS Energy Services, Inc. for Declaratory Order or Waiver of the Electric Competition Rules," **Arizona** Corporation Commission, Docket No. E-01933A-00-0486. Direct testimony submitted July 24, 2000.

"In the Matter of the Application of Questar Gas Company for an Increase in Rates and Charges," **Utah** Public Service Commission, Docket No. 99-057-20. Direct testimony submitted April 19, 2000. Rebuttal testimony submitted May 24, 2000. Surrebuttal testimony submitted May 31, 2000. Cross examined June 6 & 8, 2000.

"In the Matter of the Application of Columbus Southern Power Company for Approval of Electric Transition Plan and Application for Receipt of Transition Revenues," Public Utility Commission of **Ohio**, Case No. 99-1729-EL-ETP; "In the Matter of the Application of Ohio Power Company for Approval of Electric Transition Plan and Application for Receipt of Transition Revenues," Public Utility Commission of **Ohio**, Case No. 99-1730-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected May 2, 2000.

"In the Matter of the Application of FirstEnergy Corp. on Behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and the Toledo Edison Company for Approval of Their Transition Plans and for Authorization to Collect Transition Revenues," Public Utility Commission of **Ohio**, Case No. 99-1212-EL-ETP. Direct testimony prepared, but not submitted pursuant to settlement agreement effected April 11, 2000.

"2000 Pricing Process," **Salt River Project** Board of Directors, oral comments provided March 6, 2000 and April 10, 2000.

"Tucson Electric Power Company vs. Cyprus Sierrita Corporation," **Arizona** Corporation Commission, Docket No. E-000001-99-0243. Direct testimony submitted October 25, 1999. Cross examined November 4, 1999.

"Application of Hildale City and Intermountain Municipal Gas Association for an Order Granting Access for Transportation of Interstate Natural Gas over the Pipelines of Questar Gas Company for Hildale, Utah," **Utah** Public Service Commission, Docket No. 98-057-01. Rebuttal testimony submitted August 30, 1999.

"In the Matter of the Application by Arizona Electric Power Cooperative, Inc. for Approval of Its Filing as to Regulatory Assets and Transition Revenues," **Arizona** Corporation Commission, Docket No. E-01773A-98-0470. Direct testimony submitted July 30, 1999. Cross examined February 28, 2000.

"In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery," **Arizona** Corporation Commission, Docket No. E-01933A-98-0471; "In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.," Docket No. E-01933A-97-0772; "In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona," Docket No. RE-00000C-94-0165. Direct testimony submitted June 30, 1999. Rebuttal testimony submitted August 6, 1999. Cross examined August 11-13, 1999.

"In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery," **Arizona** Corporation Commission, Docket No. E-01345A-98-0473; "In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.," Docket No. E-01345A-97-0773; "In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona," Docket No. RE-00000C-94-0165. Direct testimony submitted June 4, 1999. Rebuttal testimony submitted July 12, 1999. Cross examined July 14, 1999.

"In the Matter of the Application of Tucson Electric Power Company for Approval of its Plan for Stranded Cost Recovery," **Arizona** Corporation Commission, Docket No. E-01933A-98-0471; "In the Matter of the Filing of Tucson Electric Power Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.," Docket No. E-01933A-97-0772; "In the Matter of the Application of Arizona Public Service Company for Approval of its Plan for Stranded Cost Recovery," Docket No. E-01345A-98-0473; "In the Matter of the Filing of Arizona Public Service Company of Unbundled Tariffs Pursuant to A.A.C. R14-2-1601 et seq.," Docket No. E-01345A-97-0773; "In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona," Docket No. RE-00000C-94-0165. Direct testimony submitted November 30, 1998.

"Hearings on Pricing," **Salt River Project** Board of Directors, written and oral comments provided November 9, 1998.

"Hearings on Customer Choice," **Salt River Project** Board of Directors, written and oral comments provided June 22, 1998; June 29, 1998; July 9, 1998; August 7, 1998; and August 14, 1998.

"In the Matter of the Competition in the Provision of Electric Service Throughout the State of Arizona," **Arizona** Corporation Commission, Docket No. U-0000-94-165. Direct and rebuttal testimony filed January 21, 1998. Second rebuttal testimony filed February 4, 1998. Cross examined February 25, 1998.

"In the Matter of Consolidated Edison Company of New York, Inc.'s Plans for (1) Electric Rate/Restructuring Pursuant to Opinion No. 96-12; and (2) the Formation of a Holding Company Pursuant to PSL, Sections 70, 108, and 110, and Certain Related Transactions," **New York** Public Service Commission, Case 96-E-0897. Direct testimony filed April 9, 1997. Cross examined May 5, 1997.

"In the Matter of the Petition of Sunnyside Cogeneration Associates for Enforcement of Contract Provisions," **Utah** Public Service Commission, Docket No. 96-2018-01. Direct testimony submitted July 8, 1996.

"In the Matter of the Application of PacifiCorp, dba Pacific Power & Light Company, for Approval of Revised Tariff Schedules and an Alternative Form of Regulation Plan," **Wyoming** Public Service Commission, Docket No. 2000-ER-95-99. Direct testimony submitted April 8, 1996.

"In the Matter of the Application of Mountain Fuel Supply Company for an Increase in Rates and Charges," **Utah** Public Service Commission, Case No. 95-057-02. Direct testimony submitted June 19, 1995. Rebuttal testimony submitted July 25, 1995. Surrebuttal testimony submitted August 7, 1995.

"In the Matter of the Investigation of the Reasonableness of the Rates and Tariffs of Mountain Fuel Supply Company," **Utah** Public Service Commission, Case No. 89-057-15. Direct testimony submitted July 1990. Surrebuttal testimony submitted August 1990.

"In the Matter of the Review of the Rates of Utah Power and Light Company pursuant to The Order in Case No. 87-035-27," **Utah** Public Service Commission, Case No. 89-035-10. Rebuttal testimony submitted November 15, 1989. Cross examined December 1, 1989 (rate schedule changes for state facilities).

"In the Matter of the Application of Utah Power & Light Company and PC/UP&L Merging Corp. (to be renamed PacifiCorp) for an Order Authorizing the Merger of Utah Power & Light Company and PacifiCorp into PC/UP&L Merging Corp. and Authorizing the Issuance of Securities, Adoption of Tariffs, and Transfer of Certificates of Public Convenience and Necessity

and Authorities in Connection Therewith," **Utah** Public Service Commission, Case No. 87-035-27; Direct testimony submitted April 11, 1988. Cross examined May 12, 1988 (economic impact of UP&L merger with PacifiCorp).

"In the Matter of the Application of Mountain Fuel Supply Company for Approval of Interruptible Industrial Transportation Rates," **Utah** Public Service Commission, Case No. 86-057-07. Direct testimony submitted January 15, 1988. Cross examined March 30, 1988.

"In the Matter of the Application of Utah Power and Light Company for an Order Approving a Power Purchase Agreement," **Utah** Public Service Commission, Case No. 87-035-18. Oral testimony delivered July 8, 1987.

"Cogeneration: Small Power Production," **Federal Energy Regulatory Commission**, Docket No. RM87-12-000. Statement on behalf of State of Utah delivered March 27, 1987, in San Francisco.

"In the Matter of the Investigation of Rates for Backup, Maintenance, Supplementary, and Standby Power for Utah Power and Light Company," **Utah** Public Service Commission, Case No. 86-035-13. Direct testimony submitted January 5, 1987. Case settled by stipulation approved August 1987.

"In the Matter of the Application of Sunnyside Cogeneration Associates for Approval of the Cogeneration Power Purchase Agreement," **Utah** Public Service Commission, Case No. 86-2018-01. Rebuttal testimony submitted July 16, 1986. Cross examined July 17, 1986.

"In the Matter of the Investigation of Demand-Side Alternatives to Capacity Expansion for Electric Utilities," **Utah** Public Service Commission, Case No. 84-999-20. Direct testimony submitted June 17, 1985. Rebuttal testimony submitted July 29, 1985. Cross examined August 19, 1985.

"In the Matter of the Implementation of Rules Governing Cogeneration and Small Power Production in Utah," **Utah** Public Service Commission, Case No. 80-999-06, pp. 1293-1318. Direct testimony submitted January 13, 1984 (avoided costs), May 9, 1986 (security for levelized contracts) and November 17, 1986 (avoided costs). Cross-examined February 29, 1984 (avoided costs), April 11, 1985 (standard form contracts), May 22-23, 1986 (security for levelized contracts) and December 16-17, 1986 (avoided costs).

OTHER RELATED ACTIVITY

Participant, Oregon Direct Access Task Force (UM 1081), May 2003 to November 2003.

Participant, Michigan Stranded Cost Collaborative, March 2003 to March 2004.

Member, Arizona Electric Competition Advisory Group, December 2002 to present.

Board of Directors, ex-officio, Desert STAR RTO, September 1999 to February 2002.

Member, Advisory Committee, Desert STAR RTO, September 1999 to February 2002. Acting Chairman, October 2000 to February 2002.

Board of Directors, Arizona Independent Scheduling Administrator Association, October 1998 to present.

Acting Chairman, Operating Committee, Arizona Independent Scheduling Administrator Association, October 1998 to June 1999.

Member, Desert Star ISO Investigation Working Groups: Operations, Pricing, and Governance, April 1997 to present. Legal & Negotiating Committee, April 1999 to December 1999.

Participant, Independent System Operator and Spot Market Working Group, Arizona Corporation Commission, April 1997 to September 1997.

Participant, Unbundled Services and Standard Offer Working Group, Arizona Corporation Commission, April 1997 to October 1997.

Participant, Customer Selection Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Stranded Cost Working Group, Arizona Corporation Commission, March 1997 to September 1997.

Member, Electric System Reliability & Safety Working Group, Arizona Corporation Commission, November 1996 to September 1998.

Chairman, Salt Palace Renovation and Expansion Committee, Salt Lake County/State of Utah/Salt Lake City, multi-government entity responsible for implementation of planning, design, finance, and construction of an \$85 million renovation of the Salt Palace Convention Center, Salt Lake City, Utah, May 1991 to December 1994.

State of Utah Representative, Committee on Regional Electric Power Cooperation, a joint effort of the Western Interstate Energy Board and the Western Conference of Public Service Commissioners, January 1987 to December 1990.

Member, Utah Governor's Economic Coordinating Committee, January 1987 to December 1990.

Chairman, Standard Contract Task Force, established by Utah Public Service Commission to address contractual problems relating to qualifying facility sales under PURPA, March 1986 to December 1990.

Chairman, Load Management and Energy Conservation Task Force, Utah Public Service Commission, August 1985 to December 1990.

Alternate Delegate for Utah, Western Interstate Energy Board, Denver, Colorado, August 1985 to December 1990.

Articles Editor, Economic Forum, September 1980 to August 1981.

1999 TEP Settlement Agreement
Paragraph 2.1(h)

- (h) The CTC for an ESA customer shall be calculated using the customers' ESA price as of May 1, 1999 (subject to any automatic escalation provisions contained in the ESA) as the customer's bundled rate.

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